

or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2350. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2350.

**Remarks/Arguments** begin on page 3 of this document.

Please amend the application as follows:

**REMARKS**

Claims 1-4 are pending in the application. Claim 1 was amended in Applicants' previous Amendment and Reply filed on January 30, 2007. In the communication mailed from the USPTO on March 27, 2007, the Examiner noted that Applicants had failed to respond to the rejection under 35 U.S.C. § 103(a). In view of the supplemental remarks that follow, Applicants respectfully request that all of the pending rejections be withdrawn.

***Rejection of Claims Under 35 U.S.C. § 103(a)***

Claims 1-4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mulholland *et al.* in view of Decrock *et al.* Applicants respectfully traverse.

In the Office Action, the Examiner acknowledged that Mulholland *et al.* does not disclose a gaseous composition of <sup>17</sup>F-labeled fluoromethane comprising neon. However, the Examiner stated that Decrock *et al.* teaches the production of radioactive fluorine beams and extraction of radioactive atoms of CF<sub>4</sub>. The Examiner went on to conclude that it would have been obvious to one ordinarily skilled in the art to utilize neon gas to generate <sup>17</sup>F-labeled fluoromethane as disclosed by Decrock *et al.*, since neon, an inert gas, can be directly utilized without any chemical intermediate step.

In order to establish a *prima facie* case of obviousness, three criteria must be met: (1) there must be some suggestion or motivation to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. (MPEP 2142.)

The combination of Mulholland *et al.* and Decrock *et al.* fails to establish a *prima facie* case of obviousness because neither reference suggests a gaseous composition comprising <sup>17</sup>F-labeled CH<sub>3</sub>F *having an equilibrium activity of greater than or about 20 mCi*, as recited in claim 1.

Applicants recognize that a cited reference may inherently teach a claim limitation. However, “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art.” (MPEP 2112 IV) Moreover, “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” (MPEP 2112 IV)

In the Office Action the Examiner has not asserted that either reference inherently teaches a gaseous composition comprising  $^{17}\text{F}$ -labeled  $\text{CH}_3\text{F}$  *having an equilibrium activity of greater than or about 20 mCi*, and certainly has provided no basis to support the determination that such a limitation would necessarily flow from the teachings of either reference. For this additional reason, the Examiner has failed to provide a *prima facie* case of obviousness.

With respect to claim 4, Applicants further note that the Examiner has not provided a suggestion or motivation to combine Mulholland *et al.* and Decrock *et al.* Contrary to the Examiner’s assertion, Decrock *et al.* does not disclose  $^{17}\text{F}$ -labeled fluoromethane. Decrock *et al.* discloses  $^{17}\text{F}$ -labeled  $\text{CF}_4$ .  $^{17}\text{F}$ -labeled  $\text{CF}_4$  is *not*  $^{17}\text{F}$ -labeled fluoromethane. As noted in paragraph 40 of the present application, fluoromethane has the formula  $\text{CH}_3\text{F}$ . (In order to expedite the prosecution of the application, claim 1 was amended in Applicants’ previous response to clarify this point.) In contrast to Decrock *et al.*, Mulholland *et al.* is directed to methods for the production of  $^{17}\text{F}$ -labeled  $\text{CH}_3\text{F}$ . The Examiner has provided no explanation to support the conclusion that one of ordinary skill in the art would be motivated to employ a method designed for the production of  $^{17}\text{F}$ -labeled  $\text{CF}_4$  to produce  $^{17}\text{F}$ -labeled  $\text{CH}_3\text{F}$ , which is an entirely different molecule. For this additional reason, Applicants respectfully request that the rejection of claim 4 be withdrawn.

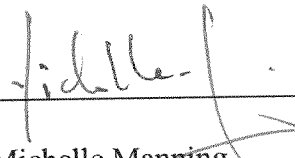
In view of the foregoing remarks, Applicants respectfully submit that all of the claims remaining in the application are in condition for allowance, and favorable action thereon is respectfully solicited.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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